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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,511

Applicant(s)

KANDALA, SRINIVAS

Examiner

Kristie Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant has amended claims 1, 5, 11, 15, 21 and 25.

Claims 1-30 are still pending.

Response to Arguments

1. Applicant's argument with respect to claim 1 has been considered but is moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, 6, 9, 11, 13, 15, 16, 19, 21, 23, 25, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gilbert et al* (USPN 5,297,144) in view of *Fong et al* (USPN 6,069,885) and *Fox* (USPN 5,890,134).

a. **Per claim 5**, *Gilbert et al* teach the device comprising:

- a memory (col.6 lines 23-24, col.13 lines 55-59 and col.14 lines 7-9); and

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- a processor coupled with the memory, wherein the processor is adapted to (col.13 line 28-col.14 line 9):
- wirelessly receive at least one multi-poll scheduling frame (Abstract, col.3 line 10-col.4 line 50, col.7 line 23-col.8 line 63; provision for wireless communication of multi-polling scheduling);
- decode from the wirelessly received multi-poll scheduling frame a schedule for wireless communications with another device only during a first time window having a defined start time and end time and for subsequent wireless communications during a second time window having a defined start time and end time that does not overlap with the first time window during which to exchange data (col.3 line 30-col.4 line 32, col.7 lines 35-62 and col.8 line 29-col.9 line 15; time slots are reserved and sequentially assigned for the remote stations prior to the priority-level polling—time slots/windows inherently have a start and end time).

Yet *Gilbert et al* fail to explicitly teach during the first time window, wirelessly receive a rescheduling frame enabling wireless communications for the second time window before the end time of the first time window; dynamically reschedule wireless communications during the second time window to begin before the end of the first time window in response to the rescheduling frame; and wirelessly exchange data during the rescheduled second time window before the first time window ends. However, *Fong et al* disclose dynamically scheduling and assigning time slots according to the amount of information transmitted by the communication devices (col.4 lines 35-48, col.7 line 17-col.8 line 60, col.9 line 1-col.10 line 36 and col.10 line 66-col.12 line 11). *Gilbert et al* and *Fong et al* fail to explicitly teach the rescheduling feature. However, *Fox* teaches rescheduling operations, wherein the rescheduling process is implemented according to a set completion time wherein, subsequent tasks are chronologically reordered and data is exchanged before the end of the completion time (col.3 lines 27-59, col.5 lines 5-59, col.6 lines 11-52, col.7 line 28-col.8 line 9 and col.13 lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Gilbert et al* with *Fong et al* for dynamically scheduling and assigning time slots for scheduling wireless communication with devices and for implementing the rescheduling process of *Fox* wherein upon rescheduling, the subsequent tasks are chronologically reordered for adjusting the arrangement of the schedule.

b. **Claims 1, 11, 15, 21 and 25** contain limitations that are substantially similar to claim 5 and are therefore rejected under the same basis.

c. **Per claims 3, 13 and 23**, *Gilbert et al* device of claim 1, wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time windows and that the second time window alternate with the first time window according to a periodicity, and the processor is further adopted to: encode data about the periodicity in the multi-poll scheduling frame (Abstract, col.3 line 30-col.4 line 44 and col.7 line 23-col.8 line 63).

d. **Per claims 6, 16 and 26**, *Fox* teaches the device of claim 5, wherein the second time window is rescheduled to start immediately after the rescheduling frame (col.3 lines 27-59 and col.9 line 2-col.10 line 44; upon rescheduling, subsequent tasks of the preliminary schedule may be rescheduled with new start times for immediate execution, or may retain their chronological order from the preliminary schedule ordering).

e. **Per claims 8, 18 and 28**, *Fox* teaches the device of claim 5, wherein the processor is further adapted to: decode from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window (Fig.1-3 and col.5 line 37-col.10 line 65; the scheduling system allows for alternating and rearranging scheduled time slots—*Gilbert et al*; col.11 line 36-col.12 line 20).

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f. **Claims 9, 19 and 29** are substantially similar to claims 6, 16 and 26 respectively, and are therefore rejected under the same basis.

4. **Claims 2, 4, 7, 10, 12, 14, 17, 20, 22, 24, 27 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gilbert et al* (USPN 5,297,144), *Fong et al* (USPN 6,069,885) and *Fox* (USPN 5,890,134) in further view of *Kamel et al* (USPN 6,374,103).

a. **Per claim 2**, *Gilbert et al*, *Fong et al* and *Fox* teach the device of claim 1, as applied above, yet fail to explicitly teach the device wherein the rescheduling frame is a null frame. However, *Kamel et al* teach time slots filled with null messages for the mobile devices (Abstract, col.1 line 46-col.2 line 6 and col.2 line 48-col.3 line 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the multi-polling, dynamic scheduling and rescheduling teachings of *Gilbert et al*, *Fong et al* and *Fox* with *Kamel et al* for permitting a null frame in the time slot of the rescheduling process of the transmission to the mobile device for selectively or dynamically filling the frame with a timing value.

b. **Claims 4, 7, 10, 12, 14, 17, 20, 22, 24, 27 and 30** are substantially similar to claim 2 and are therefore rejected under the same basis.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Willey* (USPN 6,307,846), *Williams et al* (USPN 5,881,296), *Garcia-Luna-Aceves et*

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al (USPN 6,788,702), *Honkasalo et al* (USPN 6,094,426), *Airy et al* (USPN 6,400,699), *Kalkunte et al* (USPN 6,891,835) and *Naim et al* (USPN 6,885,868).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


RUPAL DHARIA
PATENT EXAMINER